

Ameren Illinois
Future Test Year 2014
Additions to Plant in Service Since the Last Rate Case

1) J01HP - Enterprise Asset Management Implementation

- a) Description of addition:
All software, hardware, labor and consulting required to implement IBM Maximo Enterprise Asset Management (EAM) software.
- b) Date project started: February 2013
- c) Completion date: December 2014
- d) Completion cost: \$12,451,985

e) Reason for the project:

Goal 1: Reduce regulatory gas compliance audit risk

Supporting Objectives:

- 1. Implement processes and technology to facilitate adherence to current and future regulatory requirements governing gas assets including the transmission integrity management (TIMP) and distribution integrity management (DIMP) regulations.
- 2. Position AIC gas engineering and operations functions to take advantage of technology improvements in the future.

Goal 2: Increase knowledge of facilities as required by the DIMP and TIMP regulations

Supporting Objectives:

- 1. Automate data collection requirements in the field to enable electronic capture of information and reduce human error related to manual data collection operations. Eliminate the possibility of duplicated records using the current hybrid process of manual capture and electronic records storage.
- 2. Enable utilization of GPS technology in the field to capture O&M activities and asset locations
- 3. Provide graphical (map) solution for scheduling, tracking, and performing gas field work.
- 4. Provide a device-agnostic, mobile (out-of-truck) solution in the field for access to asset and related data.
- 5. Convert manual collection processes to mobile collection processes including Pipe Inspections, Service Examination Card, Leak Tracking, Leak Surveys, etc.

Goal 3: Improve Ameren Gas Operations' ability to respond to more frequent regulatory change and higher regulatory standards.

Supporting Objectives:

1. Provide technology administered by Users (System Admins), minimizing IT intervention. (configure rules, internal access, query the system).
2. Provide technology to eliminate manual interventions used in managing assets at the corporate, state, division, etc. level.
3. Eliminate lag between gas field collection and data entry to provide real-time pipeline safety compliance reporting and operations and maintenance information on the gas assets.
4. Automate business process work flows, approvals and reminders for mandated pipeline safety compliance dates.
5. Eliminate redundant data entry processes and requirements for supervisory data reviews and approvals.

Goal 4: Improve the quality of Gas records

Supporting Objectives:

1. Eliminate the use of paper for gas field data collection.
2. Provide data edit rules in the field, at the point of data entry to capture all required information and eliminate data errors and omissions.
3. Leverage data in corporate applications via integration (GIS, EAM, MWM, LMS, PeopleSoft, PowerPlant, ACMS, etc.) to automate edit rules.

Goal 5: Provide a strategic direction for asset management technology across Energy Delivery

Supporting Objectives:

1. Provide a robust platform capable of tracking, scheduling, and reporting work on additional gas and Energy Delivery assets, beyond those currently tracked in the Gas Compliance System (GCS).
2. Provide the technical roadmap and supporting due diligence to allow AIC to leverage Maximo functionality as the future replacement for DOJM. Due diligence was performed (Sept-Nov 2012) by a separate team consisting of Electric Construction and DOJM representation. This team validated Maximo against the Electric Construction processes/requirements to ensure it would meet their needs as a DOJM replacement.

f) Alternatives considered and the reasons for rejecting each:

Three alternatives were evaluated during the GCS assessment phase that occurred in 2011.

Option 1 – Keep current Gas Compliance System (GCS), implement mobile, and integrate with GTech.

Option 2 – Replace GCS with another point solution, implement mobile, and integrate with GTech.

Option 3 – Implement an Enterprise Asset Management (EAM) system, implement mobile, and integrate with GTech.

Option 3 was recommended and approved by the Project Approval Committee as providing the greatest value both as a replacement and as a strategic technology investment. This option is a strategic, long-term solution with the capacity to provide a comprehensive asset management direction for Energy Delivery while meeting the requirements of the three main drivers: 1) leverage data in existing systems by integration, 2) provide flexibility to adapt to rapidly changing regulatory requirements and regulations, 3) eliminate paper data collection processes to improve the quality of gas records by providing real-time data quality checks against corporate data rules and corporate data. Neither Option 1 nor Option 2 was able to satisfy these business requirements.

- g) List of reports relied upon by management when deciding to pursue the rate base addition:
- J01HP - EAM-MWM Project Plan.doc

2) J01HZ – Mobile Work Management System Implementation

- a) Description of addition:
All software, hardware, labor and consulting required to implement ClickSoftware Mobile Work Management (MWM) software for Ameren Illinois (AIC) Gas Operations.
- b) Date project started: February 2013
- c) Completion date: December 2014
- d) Completion cost: \$9,043,915
- e) Reason for the project:
The MWM software is required to support the implementation of the new Enterprise Asset Management (EAM) Implementation (Project J01HP). This separate but related project to EAM provides mobile gas utility workers the ability to perform Gas Compliance activities through a tracking and documentation software application directly from their vehicles.
- f) Alternatives considered and the reasons for rejecting each:
Outside of the alternatives discussed in J01HZ, no other alternatives were considered. The approval of Project J01HZ was based on the approval of J01HP.
- g) List of reports relied upon by management when deciding to pursue the rate base addition:
(See list of reports presented in Project J01HP – Enterprise Asset Management Implementation)

3) J00QW - Small Volume Gas Transport System

a) Description of addition:

Implement new processes and systems to support Small Volume Gas (SVT) transportation for residential and small non-residential customers including the ability for non-residential customers to migrate to and from SVT and general gas transportation. The resulting additions shall provide a customer centric suite of interfacing systems to enable Ameren Illinois to automate enrollment and billing processes, hold or reduce staff time associated with the customer inquiries, and enhance customer satisfaction due to availability of customer data as well as elimination of account splitting. Additionally, the development of the settlement functionality within the SVT suite of systems will allow the use of cycle meter reads for SVT customers, minimizing the impact of the program on meter reading schedules and costs. The improvements also anticipate the requirement to support substantial SVT enrollment, similar to enrollments in electric aggregation programs, immediately upon the program's availability.

This project will have four primary components:

1. Provide capabilities to support supply choice for residential gas customers;
2. Enhance the ability of small non-residential customers to participate in gas choice and move to and from the general gas transportation rates;
3. Provide for Utility Consolidated Billing/Purchase of Receivables (UCB/POR) for SVT residential and SVT small non-residential gas customers; and
4. Assign utility gas transportation and storage assets to SVT suppliers, proportional to the amount of gas used by their customers.

b) Date project started: January 2013

c) Completion date: May 2014

d) Completion cost: \$7,009,320

e) Reason for the project:

Commission Directive on SVT in Docket #11-0282 (pages 193-195 of the order)

- The Commission ordered workshops to commence within 60 days of the Order and to conclude after 6 months, which ended on September 10, 2012.
- If, at the conclusion of the workshops, consensus was reached on the design of an SVT program, Ameren Illinois was directed to file a petition with the ICC to initiate the program.

- “The Commission notes that it has long had a policy favoring competition in energy markets, and the Commission believes that customers will generally benefit from being given the opportunity to participate in a well-designed competitive market. The Commission also recognizes that the Act also generally supports competition in the market, and that the Commission has consistently advanced this view.”

Ameren Illinois put forward a proposal to implement SVT. No consensus was reached, so Ameren Illinois did not file a petition to start an SVT program.

In anticipation of the Commission ordering the implementation of an SVT program, Ameren Illinois has started the build-out of SVT systems and has included the projected capital expenditures for SVT in this gas delivery service rate case.

- Should the Commission order AIC to implement an SVT program in this rate case filing, enhancements to the customer systems, gas management and billing systems will facilitate enrollments, gas management and billing.
 - If the Commission decides not to order an SVT program, the revenue requirements associated with the capital expenditures can be removed from the case.
- f) Alternatives considered and the reasons for rejecting each:
- Not implementing SVT capabilities. This "status quo" alternative was not considered due to Commission statements in support of an SVT program in the final order in Docket No. 11-0282, the previous introduction of gas government aggregation legislation, and interest in SVT from retail competitive suppliers.
- g) List of reports relied upon by management when deciding to pursue the rate base addition:
- J00QW – Data on Electric Switching.xls
 - J00QW - ICC Order Establishing SVT Workshops.doc
 - J00QW - Media Reports on Success of Electric Aggregation.doc
 - J00QW - Seckler Surrebuttal 11-0279 11-0282.doc
 - J00QW - SVT Leadership Update - Status as of 10-31-12 FINAL.doc
 - J00QW - Table of Ameren Illinois Gas Customers and Supply Choice.doc

4) 26122 - AIC Gas - 2014 Purchase Vehicles

a) Description of addition:

Purchase and replace company-owned vehicles and related equipment that is nearing the end of its useful life. The age of vehicles is the primary factor for replacement, along with mileage and hours of use. This includes a plan to reduce out of life cycle units over the next 5-7 years.

b) Date project started: January 2014

c) Completion date: December 2014

d) Completion cost: \$6,999,305

e) Reason for the project:

AIC lifecycles are the optimal life of the asset to provide the lowest overall cost to operate. Exceeding the lifecycle will cause maintenance cost to rise and overall ownership cost. In 2012 AIC spent approximately \$2.8M to replace at or out of lifecycle vehicles. The Company plans on increasing these capital expenditures toward an objective of replacing vehicle and equipment that are at or beyond their useful life and to optimize the lifecycle over the group classes during the next 5-7 years. AIC has compared its lifecycles to industry peers and the Company is consistent in this approach.

f) Alternatives considered and the reasons for rejecting each:

Continue to maintain existing vehicles. As vehicles become older, they require more maintenance. Eventually the major components of a vehicle will simply wear out and fail. This option will cause fleet maintenance cost to rise rapidly. Also, the risk of a vehicle experiencing an unexpected breakdown increases as the vehicle gets older, potentially affecting emergency and customer service response capability.

g) List of reports relied upon by management when deciding to pursue the rate base addition:

- 26122 & 24441 - Power Plant VX Query YTD 12 10 12.xlsx
- 26122 & 24441 - AIC Lifecycle Report.xlsx

5) J01ZV - Gas System Enhancements

- a) Description of addition:
Consolidate existing Unbundled Services Management System (USMS) functionality, as appropriate, along with implementing new processes and systems to support expanded use of general gas transportation services and consolidate billing/management systems into one central application. The resulting additions shall provide a customer centric suite of interfacing systems to enable Ameren Illinois to automate enrollment and billing processes, maintain or reduce staff time associated with the customer inquiries, and enhance customer satisfaction due to availability of customer data as well as elimination of account splitting. The new processes will include the automation of gas management interfaces with pipelines and suppliers.
- b) Date project started: November 2012
- c) Completion date: November 2013
- d) Completion cost: \$6,068,710
- e) Reason for the project:
Ameren Illinois is enhancing its basic gas transportation billing and management systems.
- Systems were originally developed to support manual gas transportation enrollment, billing, and management processes that assumed that only 25 to 50 large industrial customers would transport gas - current transportation customers (4,742) far exceed the assumed level of transportation activities.
 - The current level of transportation customer enrollment and the growth in near-term customer enrollment exceed Ameren Illinois' existing capabilities to efficiently enroll customers and administer to their billing and customer service needs following enrollment. The investments will provide best utility practice capabilities to Ameren Illinois' gas transportation billing and management systems.
 - Enhancements are designed to provide capabilities similar to what's successfully used on the electric side of the business since a large number of electric Suppliers are also gas Suppliers.
 - Automates gas management interfaces with pipelines and suppliers, which provides for less labor-intensive integration of pipeline/supplier data into Ameren Illinois' gas transportation billing and management systems.
 - The investment will support revised enrollment, management and billing processes that are designed to limit O&M expenditures in future years.

- f) Alternatives considered and the reasons for rejecting each:
- Alternative 1: Place a limit on the number of gas transportation customers. 6.3% of the currently eligible customers (4,742 of 74,755) participate in gas transportation. However, given current PGA pricing compared to market pricing it is logical to anticipate additional transportation participation of 20% annually in the near term; hence this approach was rejected as not providing appropriate levels of customer satisfaction and support of choice.
 - Alternative 2: Keep the existing process and hire additional End User Transportation (EUT) and Customer Service staff to support the current process. Current ratio is 4,742 gas transportation accounts to 5 EUT staff (948.4 accounts per staff). Using that ratio as the assumption would mean as many as 73 added FTE's would be needed should all remaining eligible customers elect to transport gas. In addition the current highly manual process also places additional manual work burdens on the customer management organization for billing, call handling, and meter reading. Simply looking at the additional EUT FTE requirements to support near-term growth in transportation customers represents potential additional O&M impact of \$7 million per year. Regardless of the level of growth in transportation customers, the added O&M costs represent additional impediments to gas transportation which is inconsistent with the Commission's support of choice in Docket 11-0282. Continuation of labor intensive processes and continuing to place restrictions on the timing of customer transactions reduce customer satisfaction. Consequently, system enhancements and automation provide a more appropriate solution.
- g) List of reports relied upon by management when deciding to pursue the rate base addition:
- J01ZV - Ameren Illinois As-Is Gas Transportation Program Outline.doc
 - (see also) J00QW - Table of Ameren Illinois Gas Customers and Supply Choice.doc
 - J01ZV - Why incorporate USMS into CSS.doc

- 6) J01TC - Replace Approximately 4 Miles 16" Main on the 100 Line - Phase I
- a) Description of addition:
Replace approximately 4 miles of 16" gas transmission main on the AIC 100 Line.
 - b) Date project started: January 2013
 - c) Completion date: September 2014
 - d) Completion cost: \$5,255,070
 - e) Reason for the project:
This project will replace a 1930's vintage gas transmission main. The pipeline is known to have mechanical joint connections and has minimal pressure test and installation records of which much was not required to be maintained during the time of installation. Anticipated federal Pipeline and Hazardous Materials Safety Administration (PHMSA) pipeline safety regulations will require MAOP validation and existing records will not satisfy the regulatory requirements. The replacement will meet the requirements of the regulations and improve the integrity of the pipeline and strengthen public safety.
 - f) Alternatives considered and the reasons for rejecting each:
The pipeline is nearly 80 years old, at the end of its useful life, and constructed of materials and components that are not conducive to reestablishment of the MAOP according to current industry methods, standards and regulations. The pipeline is integral to providing safe and reliable service to the city of Peoria and the entire regional load center and is needed to support peak day load and to fully utilize the existing delivery infrastructure including the Glasford Storage field.
 - g) List of reports relied upon by management when deciding to pursue the rate base addition:
N/A

7) 24441 - AIC Gas - 2013 Purchase Vehicles

a) Description of addition:

Purchase and replace company-owned vehicles and construction and operating equipment that are approaching the end of their useful life. The age of vehicles is a primary factor for replacement, as well as other factors including mileage, hours of use, and maintenance history. The replacement forecast of units includes reducing the number of units that are outside of the unit life cycle parameters, over the next 5-7 years.

b) Date project started: January 2013

c) Completion date: December 2013

d) Completion cost: \$4,500,600

e) Reason for the project:

There are company owned vehicles and construction and operating equipment that are approaching or exceeded their identified life cycle and to optimize the life cycle of AIC's gas fleet. In 2012 AIC spent approximately \$2.8M to replace at or out of lifecycle vehicles. AIC life cycle parameters are identified and utilized to approximate the period of time the asset will provide optimal value. The age of vehicles is a primary factor for replacement, as well as other factors including mileage, hours of use, and maintenance history. AIC does compare vehicle and equipment lifecycles to industry peers as part of validating the life cycle approach. The replacement forecast of vehicles and equipment includes replacing additional units that are outside of the unit life cycle parameters, over a five to seven year period.

f) Alternatives considered and the reasons for rejecting each:

Continue to maintain existing vehicles. As vehicles become older, they will require more maintenance resulting in additional costs. Eventually the major components of a vehicle, such as the engine and transmission, will fail. Eliminating replacements and maintaining until failure would cause maintenance cost to increase. Also, the risk of a vehicle experiencing an unexpected breakdown increases as the vehicle gets older, potentially affecting emergency and customer service response capability.

g) List of reports relied upon by management when deciding to pursue the rate base addition:

- 26122 & 24441 - Power Plant VX Query YTD 12 10 12.xlsx
- 26122 & 24441 - AIC Lifecycle Report.xlsx

8) 28211 - Illinois Network Redesign - Phase 3

a) Description of addition:

This project will support AIC's communication capability across various technologies. Phase 3 (of a 4-phase overall project) includes the approximately 30 sites in the eastern and southern portions of the Company's service territory.

b) Date project started: January 2013

c) Completion date: December 2013

d) Completion cost: \$3,830,635

e) Reason for the project:

To provide unified network across Ameren Illinois to support a more reliable and flexible communication capability. Supporting systems include: Supervisory Control and Data Acquisition (SCADA), Voice and Data. The project will replace aging communications backhaul technologies which have passed manufacturer support. The entire project is being delivered in four phases (based on geographical locations).

f) Alternatives considered and the reasons for rejecting each:

Alternatives analysis reviewed four sourcing strategies in 2008/2009

Option 1 – Fully outsourced/leased

Option 2 – Hybrid ownership structure

Option 3 – Ameren owned

Option 4 – Obsolete equipment replacement

Ameren elected Option 4 – Obsolete equipment replacement and costs were budgeted over 5 years, was the most economical choice.

g) List of reports relied upon by management when deciding to pursue the rate base addition:

- 28210 and 28211 – Project Update Jan 2011.ppt

9) 28506 – Entegrate Replacement (Allegro)

- a) Description of addition:
Allegro is the new Gas Management System (GMS) software replacing the existing Entegrate GMS.
- b) Date project started: March 2012
- c) Completion date: January 2013
- d) Completion cost: \$2,976,230
- e) Reason for the project:
AIC's current GMS (Entegrate) has a software license that expires in May 2013. Sungard, owner of the Entegrate software, will not support the Entegrate platform past May 2013 and had proposed to shift all Entegrate users to their new GMS platform named Align. Since a shift to Align would require a new license fee, AIC decided to issue an RFP to other GMS software vendors.
- f) Alternatives considered and the reasons for rejecting each: AIC's Gas Supply group worked with Ameren's IT group and the Strategic Sourcing group to issue an RFP and evaluate competing bids from three potential software vendors, Allegro, Triple Point and Sungard. Allegro was selected through the RFP process based on having the best technological solution and being the most cost efficient. Triple Point and Sungard were eliminated based on their cost and technology.
- g) List of reports relied upon by management when deciding to pursue the rate base addition:
 - 28506 - Allegro Business Case.xlsx

10) 28210 – Microwave Upgrades AIC – Phase 2

- a) Description of addition:

This project will support AIC's communication capability across various technologies. Phase 3 (of a 4-phase overall project) includes the approximately 30 sites across the central, western, and northwest portions of Company's service territory.
- b) Date project started: January 2012
- c) Completion date: December 2012
- d) Completion cost: \$2,949,100
- e) Reason for the project:

To provide unified network across Ameren Illinois to support a more reliable and flexible communication capability. Supporting systems include: Supervisory Control and Data Acquisition (SCADA), Voice and Data. The project will replace aging communications backhaul technologies which have passed manufacturer support. The entire project is being delivered in four phases (based on geographical locations).
- f) Alternatives considered and the reasons for rejecting each:

Alternatives analysis reviewed four sourcing strategies in 2008/2009

 - Option 1 – Fully outsourced/leased
 - Option 2 – Hybrid ownership structure
 - Option 3 – Ameren owned
 - Option 4 – Obsolete equipment replacement

Ameren elected Option 4 – Obsolete equipment replacement and costs were budgeted over 5 years, was the most economical choice.
- g) List of reports relied upon by management when deciding to pursue the rate base addition:
 - 28210 and 28211 – Project Update Jan 2011.ppt

11) 29183 - Replace Compressor Hillsboro Storage Field

a) Description of addition:

This project included replacement of Hillsboro Gas Compressor #1 and all Compressor #1 auxiliary support equipment.

b) Date project started: June 2011

c) Completion date: July 2012

d) Completion cost: \$2,481,870

e) Reason for the project:

During annual maintenance of Hillsboro Compressor #1, it was determined that the compressor had reach end of its useful life and required replacement. Since Compressor #1 was also a smaller compressor used during initial evaluation of the field it was smaller than the other compressors and was not capable of providing full redundancy for compressor operations. Compressor size upgrade to match compressor 2 and 3 was also consider as part of this project to provide Hillsboro with gas compressor redundancy in the event of failure.

f) Alternatives considered and the reasons for rejecting each:

Option 1 – Replace compressor with a like size compressor using existing motor and auxiliary equipment – not selected – did not provide redundancy of compressors in the event of compressor 2 or 3 failure resulting in temporary loss of capacity of field, reliability concerns based on age of auxiliary equipment.

Option 2 – Replace compressor with like size compressor and replace motor starter and exciter – not selected – did not provide redundancy of compressors in the event of compressor 2 or 3 failure resulting in temporary loss of capacity of field, reliability concerns based on age of auxiliary equipment.

Option 3 – Replacement compressor, motor starter/exciter and motor control center – not selected – did not provide redundancy of compressors in the event of compressor 2 or 3 failure resulting in temporary loss of capacity of field, reliability concerns based on age of auxiliary equipment.

Option 4 – Replace compressor with upsized compressor to match compressor 2 and 3 with new auxiliary equipment to support larger compressor – not selected – replacement synchronous motor cost was extremely high.

Option 5 – Replace compressor with upsized compressor, induction motor and new auxiliary equipment to support larger compressor – not selected – concerns with reliability of existing motor control center.

Option 6 – Replace compressor with upsized compressor, induction motor, motor control center and new auxiliary equipment to support compressor size – not

selected – met all project scopes but not selected because our evaluation showed option 7 as a better selection with minimum additional cost.

Option 7 – Replace compressor with upsized compressor, induction motor, motor control center, new auxiliary equipment to support compressor size and provide loading control using a 4KV variable speed drive – selected – by selecting this option all project scope desires are met and reliability is improved by eliminating cylinder loaders on the compressor.

- g) List of reports relied upon by management when deciding to pursue the rate base addition:
- 29183 - Hillsboro Compressor Cost Evaluation.xlsx

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12) J01B8 - Pekin VFW Relocate

- a) Description of addition:
Relocate 9,950 feet of 12 in. High Pressure Distribution Gas Main, 1,630 feet of 2" Distribution Gas Main, and One Regulator Station.
- b) Date project started: March 2013
- c) Completion date: October 2013
- d) Completion cost: \$ 2,053,580
- e) Reason for the project:
The gas pipeline is in conflict with a City of Pekin road improvement project. The gas main is located on public Right of Way of the existing road and must be relocated due to a conflict.
- f) Alternatives considered and the reasons for rejecting each:
Removing existing gas line from service would be detrimental to system and result in not being able to serve existing customers. Moving line to another location would be more costly.
- g) List of reports relied upon by management when deciding to pursue the rate base addition:
 - J01B8 - 2013-No TPDP Num-G49607-Pekin - VFW relocate-AIC.xls
 - J01B8 - City of Pekin Request for Relocation.doc

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